

CONTRIBUTIONS FROM THE GRAY HERBARIUM OF
HARVARD UNIVERSITY.

NEW SERIES.—No. LXIX.

A. BRACKETT.

(Continued from page 147.)

LIST OF EXSICCATAE (HYPOXIS).

- | | |
|--|--|
| <p>A. P. Anderson.
1265 <i>hirsuta</i> (L.) Coville.
L. Andrews.
487 <i>hirsuta</i> (L.) Coville.
Arsène.
1138 <i>fibrata</i> Brackett.
C. C. Bachman.
2120 <i>hirsuta</i> (L.) Coville.
S. M. Bain.
231 <i>hirsuta</i> (L.) Coville.
Miguel Bang.
1042 <i>breviscapa</i> HBK.
1793 <i>humilis</i> HBK.
G. Baur.
239 <i>decumbens</i> L.
W. Beach.
121 <i>hirsuta</i> (L.) Coville.
Berlandier.
1832 <i>hirsuta</i> (L.) Coville.
Biltmore Herbarium.
529 <i>hirsuta</i> (L.) Coville.
529^a <i>hirsuta</i> (L.) Coville, var. <i>leptocarpa</i> (Engelm. & Gray) Brackett.
529^b <i>hirsuta</i> (L.) Coville.
529^c " " "
529^d <i>hirsuta</i> (L.) Coville, var. <i>leptocarpa</i> (Engelm. & Gray) Brackett.
529^e <i>hirsuta</i> (L.) Coville.
529^f " " "
2527^a <i>juncea</i> Smith.
2527^c " "
2527^d " "
2527^e " "
4015 <i>hirsuta</i> (L.) Coville, var. <i>leptocarpa</i> (Engelm. & Gray) Brackett.
O. W. Blakley.
1408 <i>hirsuta</i> (L.) Coville.
3433 " " "
Botteri.
80 <i>decumbens</i> L., var. <i>major</i> Seubert.
455 <i>decumbens</i> L., var. <i>major</i> Seubert.
463 <i>decumbens</i> L., var. <i>major</i> Seubert.
Bourgeau.
2830 <i>mexicana</i> Schultes.</p> | <p>M. A. Brannon.
183 <i>hirsuta</i> (L.) Coville.
W. L. Bray.
68 <i>rigida</i> Chapman.
103 <i>hirsuta</i> (L.) Coville.
Britton.
2285 <i>decumbens</i> L.
Britton and Brace.
286 <i>Wrightii</i> (Baker) Brackett.
Britton, Britton and Cowell.
10062 <i>Wrightii</i> (Baker) Brackett.
Britton and Cowell.
208 <i>decumbens</i> L.
Britton, Britton and Earle.
6301 <i>decumbens</i> L.
Britton and Hazen.
24 <i>decumbens</i> L.
Britton and Hess.
2811 <i>decumbens</i> L.
Britton, Britton and Shafer.
102 <i>juncea</i> Smith.
Britton and Shafer.
279 <i>decumbens</i> L.
779 " "
Britton, Wilson and Selby.
14332 <i>micrantha</i> Pollard.
Broadway.
220 <i>decumbens</i> L.
4724 " "
Mr. and Mrs. H. I. Brown and F. C. Seymour.
1901 <i>hirsuta</i> (L.) Coville.
Bush.
55 <i>hirsuta</i> (L.) Coville.
295 " " "
316 " " "
385 <i>hirsuta</i> (L.) Coville, var. <i>leptocarpa</i> (Engelm. & Gray) Brackett.
525 <i>hirsuta</i> (L.) Coville.
973 " " "
1441 " " "
1598 " " "
4237 " " "
J. J. Carter.
280 <i>hirsuta</i> (L.) Coville.
Bro. Leon and F. R. Cazanias.
5920 <i>Wrightii</i> (Baker) Brackett.</p> |
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- A. W. Chapman.*
510 *hirsuta* (L.) Coville.
Clute.
208 *decumbens* L.
T. Coulter.
1546 *humilis* HBK.
1565 " " "
J. F. Cowell.
521 *decumbens* L.
A. H. Curtiss.
2837* *hirsuta* (L.) Coville, var. *leptocarpa* (Engelm. & Gray) Brackett.
2838 *juncea* Smith.
4167 " " "
4573 " " "
4727 *hirsuta* (L.) Coville, var. *leptocarpa* (Engelm. & Gray) Brackett.
John Davis.
1231 *hirsuta* (L.) Coville.
3308 " " "
5156 " " "
6621 " " "
7283 " " "
7393 " " "
M. A. Day.
24 *hirsuta* (L.) Coville.
71 " " "
Deam.
44 *fibrata* Brackett.
L. H. Dewey.
205 *hirsuta* (L.) Coville.
R. A. Dixon and L. C. Gage.
679 *hirsuta* (L.) Coville.
Drummond.
342 *hirsuta* (L.) Coville, var. *leptocarpa* (Engelm. & Gray) Brackett.
417 *hirsuta* (L.) Coville.
Père Duss.
2011 *decumbens* L.
3317^c " " "
Earle and Baker.
1490 *hirsuta* (L.) Coville.
Eggers.
615 *decumbens* L.
W. H. Emig.
324 *hirsuta* (L.) Coville.
Fendler.
1565 *decumbens* L., var. *major* Seub.
Fiebrig.
891 *decumbens* L., var. *major* Seub.
5047 *decumbens* L.
5177 " " "
B. Fink.
84 *hirsuta* (L.) Coville.
G. L. Fisher.
41 *micrantha* Pollard.
M. J. Fisher.
54 *decumbens* L.
- W. C. Fishlock.*
113 *decumbens* L.
Fredholm.
315 *juncea* Smith.
3138 *decumbens* L.
5010 *juncea* Smith.
6123 " " "
6043 *hirsuta* (L.) Coville, var. *leptocarpa* (Engelm. & Gray) Brackett.
Fuertes.
1704 *decumbens* L.
C. Gates.
1553.3 *hirsuta* (L.) Coville.
A. Gershoy.
778 *hirsuta* (L.) Coville.
G. Gardner.
133 *decumbens* L.
H. A. Gleason.
2281 *hirsuta* (L.) Coville.
P. Goll.
306 *decumbens* L.
Greenman.
100 *hirsuta* (L.) Coville.
550 " " "
2323 " " "
2329 " " "
3868 " " "
Greenman, Lansing and Dixon.
39 *hirsuta* (L.) Coville.
Hale.
169 *hirsuta* (L.) Coville.
E. Hall.
631 *hirsuta* (L.) Coville.
632 *micrantha* Pollard.
W. H. Haller.
829 *hirsuta* (L.) Coville.
R. M. Harper.
1268 *hirsuta* (L.) Coville.
1365 *hirsuta* (L.) Coville, var. *leptocarpa* (Engelm. & Gray) Brackett.
1604 *juncea* Smith.
1880 *hirsuta* (L.) Coville.
W. Harris.
8589 *decumbens* L., var. *major* Seub.
9100 *decumbens* L., var. *major* Seub.
9401 *decumbens* L., var. *major* Seub.
12059 *decumbens* L.
Hart.
366 *decumbens* L.
Hassler.
1178 *decumbens* L.
3245 " " "
5562 " " "
Mr. and Mrs. A. A. Heller.
182 *decumbens* L.
982^a " " "

- Heyde and Lux.*
 2871 decumbens L.
 2934 rugosperma Brackett.
Hitchcock.
 343 juncea Smith.
Holm.
 67 decumbens L.
House.
 687 hirsuta (L.) Coville.
 1984 " " "
 2523 " " "
 4157 " " "
 5173 " " "
O. H. Howell.
 653 hirsuta (L.) Coville.
Hus.
 4107 hirsuta (L.) Coville.
M. E. Jones.
 469 fibrata Brackett.
Jørgensen.
 1551 catamarcensis Brackett.
J. R. Johnston.
 36 decumbens L.
Kearney.
 1035 hirsuta (L.) Coville.
 1265 " " "
 1378 " " "
J. H. Kellogg.
 531 hirsuta (L.) Coville.
E. P. Killip.
 3570 decumbens L.
A. F. K. Krout.
 2837 hirsuta (L.) Coville.
F. Kurtz.
 8386 humilis HBK.
Langlois.
 332 rigida Chapman.
Lehmann.
 7599 decumbens L.
Lemmon.
 2891 mexicana Schultes.
Lighthipe.
 470 juncea Smith.
Lindheimer.
 185 hirsuta (L.) Coville, var. leptocarpa (Engelm. & Gray) Brackett.
 187 sessilis L.
 188 hirsuta (L.) Coville, var. leptocarpa (Engelm. & Gray) Brackett.
F. E. Lloyd.
 579 decumbens L.
Bayard Long.
 3444 hirsuta (L.) Coville.
 3784 " " "
 5904 " " "
 6975 " " "
 7177 " " "
Long and Brown.
 148 hirsuta (L.) Coville.
- 3536 hirsuta (L.) Coville.
MacElwee.
 308 hirsuta (L.) Coville.
J. Macoun.
 13799 hirsuta (L.) Coville.
Mandon.
 1208 humilis HBK.
Maxon.
 798 decumbens L.
 6139 hirsuta (L.) Coville.
Maxon and Standley.
 96 hirsuta (L.) Coville.
McCarthy.
 8 micrantha Pollard.
E. A. Means.
 74 micrantha Pollard.
M. Meislahn.
 1698 juncea Smith.
E. L. Morris.
 210 hirsuta (L.) Coville.
J. R. Mumbauer.
 407 hirsuta (L.) Coville.
Nash.
 488 decumbens L.
 789 juncea Smith.
 952 " " "
 2072 " " "
Nash and Taylor.
 1183 decumbens L.
E. W. Nelson.
 6127 mexicana Schultes.
G. E. Nichols.
 69 decumbens L.
Nicolas.
 5203 fibrata Brackett.
J. B. Norton.
 165 hirsuta (L.) Coville.
L. B. Ohlinger.
 599 juncea Smith.
J. H. Oyster.
 3852 hirsuta (L.) Coville.
Edward Palmer.
 232 decumbens L.
 557 juncea Smith.
 581 decumbens L., var. major Seubert.
E. J. Palmer.
 694 hirsuta (L.) Coville.
 695 " " "
 1566 rigida Chapman.
 5316 micrantha Pollard.
 7380 " " "
 8519 hirsuta (L.) Coville, var. leptocarpa (Engelm. & Gray) Brackett.
 9357 hirsuta (L.) Coville.
 9520 hirsuta (L.) Coville, var. leptocarpa (Engelm. & Gray) Brackett.
 13406 hirsuta (L.) Coville.
 15114 " " "

- E. L. Palmer.*
 322 *hirsuta* (L.) Coville.
Parry and Palmer.
 871 *potosina* Brackett.
W. Palmer.
 90 *hirsuta* (L.) Coville.
A. S. Pease.
 12552 *hirsuta* (L.) Coville.
Pennell.
 1346 *hirsuta* (L.) Coville.
 2163 *humilis* HBK.
 2552 *hirsuta* (L.) Coville.
 2808 " " "
 4998 " " "
Pennell and Long.
 7812 *hirsuta* (L.) Coville.
Pollard.
 21 *hirsuta* (L.) Coville.
 200 " " "
Pollard and Maxon.
 72 *hirsuta* (L.) Coville.
 90 " " "
Pretz.
 2971 *hirsuta* (L.) Coville.
 3411 " " "
 7097 " " "
 10354 " " "
Pretz, Mattern and Long.
 6556 *hirsuta* (L.) Coville.
Pringle.
 1380 *mexicana* Schultes.
 2908 *rugosperma* Brackett.
Purpus.
 1834 *mexicana* Schultes.
 6966 *humilis* HBK.
Redfield.
 7933 *hirsuta* (L.) Coville.
 7934 " " "
A. F. Regnell.
 1237 *decumbens* L.
Reniech.
 99 *decumbens* L.
Reverchon.
 948 *hirsuta* (L.) Coville.
 2759 *rigida* Chapman.
 2759A *hirsuta* (L.) Coville.
 2760 " " "
 2760A " " "
 2780 *rigida* Chapman.
 4028 *hirsuta* (L.) Coville.
 4038 " " "
 9481 " " "
E. S. Reynolds.
 067 *hirsuta* (L.) Coville.
Riehl.
 126 *hirsuta* (L.) Coville.
B. L. Robinson.
 176 *sessilis* L.
 352 *hirsuta* (L.) Coville.
 353 *hirsuta* (L.) Coville.
 709 " " "
Rolfs.
 255 *junceae* Smith.
Rose.
 1655 *mexicana* Schultes.
 3307 *tepicensis* Brackett.
 3319 " " "
Rose and Hay.
 5374 *fibrata* Brackett.
 5442 " " "
 5967 *mexicana* Schultes.
 6142 *decumbens* L.
 6307 *mexicana* Schultes.
Rose and Hough.
 4326 *decumbens* L., var. *major* Seubert.
 4510 *fibrata* Brackett.
Rose, Fitch and Russell.
 3346 *decumbens* L.
Rose, Painter and Rose.
 9219 *mexicana* Schultes.
Rose and Painter.
 6522 *mexicana* Schultes.
 6683 " " "
 6776 " " "
 7140 " " "
 7187 " " "
 7237 *decumbens* L.
Rugel.
 132 *sessilis* L.
Rusby.
 339 *mexicana* Schultes.
Ruth.
 155 *hirsuta* (L.) Coville.
 156 " " "
Rydberg.
 8218 *hirsuta* (L.) Coville.
Safford.
 80 *hirsuta* (L.) Coville.
B. F. Saurman.
 7937 *junceae* Smith.
J. H. Schuette.
 139 *hirsuta* (L.) Coville.
F. C. Seymour.
 1157 *hirsuta* (L.) Coville.
Shafer.
 3239 *decumbens* L.
W. C. Shannon.
 4721 *decumbens* L.
Small and Small.
 5028 *Wrightii* (Baker) Brackett.
Small and Wilson.
 1871 *micrantha* Pollard.
J. D. Smith.
 342 *junceae* Smith.
 343 *hirsuta* (L.) Coville, var. *leptocarpa* (Engelm. & Gray) Brackett.

<i>H. H. Smith.</i>	<i>Townsend and Barber.</i>
2266 decumbens L., var. major Seubert.	70 fibrata Brackett.
<i>H. H. Smith and G. W. Smith.</i>	<i>Tracy.</i>
14 decumbens L.	5090 rigida Chapman.
<i>U. C. Smith.</i>	5091 " "
1405 hirsuta (L.) Coville.	5092 " "
<i>M. P. Somes.</i>	5093 " "
3067 hirsuta (L.) Coville.	5095 micrantha Pollard.
<i>Spruce.</i>	6418 " "
5068 decumbens L.	6621 hirsuta (L.) Coville, var. leptocarpa (Engelm. & Gray) Brackett.
<i>J. P. Standley.</i>	6866 juncea Smith.
7 juncea Smith.	7514 " "
499 " "	9231 hirsuta (L.) Coville.
<i>P. C. Standley.</i>	<i>H. von Tuerckheim.</i>
11381 hirsuta (L.) Coville.	33 decumbens L., var. major Seubert.
12963 juncea Smith.	3842 decumbens L., var. major Seubert.
<i>Standley and Bollman.</i>	
12097 hirsuta (L.) Coville.	<i>Underwood and Griggs.</i>
<i>L. D. Starr.</i>	785 decumbens L.
2817 hirsuta (L.) Coville.	956 " "
<i>A. Stewart.</i>	977 " "
1135 decumbens L.	<i>L. F. Ward.</i>
<i>W. Stone.</i>	137 hirsuta (L.) Coville.
72 micrantha Pollard (in part).	<i>A. E. Wight.</i>
<i>Schaffner.</i>	271 Wrightii (Baker) Brackett.
506 humilis HBK.	<i>T. Williams.</i>
545 potosina Brackett.	74 hirsuta (L.) Coville.
<i>Sintenis.</i>	<i>C. S. Williamson.</i>
488 decumbens L.	103 hirsuta (L.) Coville.
1067 Wrightii (Baker) Brackett.	1513 " " "
<i>F. C. Straub.</i>	<i>Percy Wilson.</i>
52 juncea Smith.	347 decumbens L.
<i>A. A. Taylor.</i>	<i>C. Wright.</i>
71 Wrightii (Baker) Brackett.	1515 decumbens L.
<i>Alexandrina Taylor.</i>	3745 Wrightii (Baker) Brackett.
4227 decumbens L.	<i>Wright, Parry and Brummel.</i>
<i>Tonduz.</i>	530 decumbens L.
7280 decumbens L.	
8028 " "	

II. SOME GENERA CLOSELY RELATED TO HYPOXIS.

Previous to 1762 the plants now known as *Hypoxis* were scattered among the genera *Anthericum*, *Crocus*, *Ornithogalum*, *Allium* etc. Linnaeus in the first edition of his *Species Plantarum* (1753) had thus distributed them but in his second edition (1762) he formed under *Hexandria Monogynia* the genus *Hypoxis* with four species. In his *Philosophia Botanica* (1751) he had proposed a fragment of a Natural System of classification and in Sprengel's edition of this work (1809) *Hypoxis* was added to the class *Coronariae*.

Jussieu in 1789 published his *Genera Plantarum* in which he proposed a system of classification supposed to be more natural than the one of Linnaeus because the whole structure of the plant was taken into

consideration. In this, under Class III *Perigyna*, Order VII *Narcissi* of his Monocotyledons, he placed the genus *Hypoxis*.

Robert Brown in his *Prodromus* (1810) formed the family *Amaryllideae* and under the heading "Genera inter Asphodeleas et Amaryllideas media" placed the genera *Hypoxis*, *Curculigo* Gaertner and *Campynema* Labillardière. Later in his *General Remarks on the Botany of Australia* (1814), he said, "it is better to consider *Curculigo* and *Hypoxis* as forming a separate family." This family he proposed to call the *Hypoxideae*, characterized by "*Perianthium* superum limbo sexpartito, regulari, aestivatione imbricata. *Stamina* sex, imis lacinis inserta. *Ovarium* 3-loc. loculis polyspermis. *Capsula* evalvis, nunc baccata, polysperma. *Semina* umbilico laterali rostelliformi: testa atra crustacea. *Embryo* in axi albuminis carnosi: radícula vaga."

Curculigo was described by Gaertner in 1788 with the species *C. orchioides*, a plant which had previously been considered an orchid. Jussieu in 1789 made no mention of this new genus but later Robert Brown classed it with *Hypoxis* as above stated.

Campynema was described by Labillardière (1804) as a new genus based upon a plant from Tasmania which he called *C. linearis*. Since it has a leafy stem and its seeds are very different from those of *Hypoxis* it seems unwise to place these two genera together.

John Lindley in his *Introduction to a Natural System of Botany* (1831) placed *Curculigo* and *Hypoxis* under the order *Hypoxideae*. Later in his *Natural System of Botany* (1836) he placed the *Hypoxideae* as a family under the order *Amaryllidaceae* and he said, "I give up the possibility of characterizing Hypoxideae as a distinct Order, for their occasionally rostellate seeds appear of no value as an ordinal distinction." All of the American species of *Hypoxis* and *Curculigo* have rostellate seeds and Baker says the Old World species of both likewise have them. So by including plants without rostellate seeds Lindley seems to have brought together some unrelated genera when he placed *Curculigo* including *Molineria* Colla, *Hypoxis* including *Fabrica* Thunberg and "*Caecanthus* Schlechtendal" (originally published *Coelanthus* Willd.) under the family *Hypoxideae*.

Colla (1825) described *Molineria*, with *M. plicata* as type, and observed that it had been considered a *Curculigo* but that it differed from the latter in several respects. He listed the differences and also gave a figure of his plant. From his plate and from specimens of

similar appearance it seems that he over-estimated some of these differences. For instance, he stated that the seed of his plant is "inappendiculata . . . non rostratum," as is the seed of *Curculigo orchioides* which must be taken as the type for the genus *Curculigo*. Nevertheless, when a *Molineria* seed is seen under a microscope the beak and rostrate hilum are clearly discernible. They are obscured to the unaided eye by the uneven contour of the whole seed.

Coelanthus has the flowers in racemes, a superior ovary and is generally referred to the genus *Lachenalia* of the *Liliaceae*.

In 1847 in his *Vegetable Kingdom* under the alliance *Nacissales* Lindley again made the *Hypoxidaceae* a separate order, between the *Haemodoraceae* and the *Amaryllidaceae*. He characterized it by "Flowers hexapetaloidous, much imbricated. Stamens 6; anthers turned inwards. Radicle remote from the hilum, which is often strophiolate." Under this order he placed the genera *Curculigo*, *Forbesia* Ecklon, *Pauridia* Harvey and *Hypoxis*. This time he put "*Coelanthus* W." among the *Liliaceae*.

I have been unable to see Ecklon's description of *Forbesia* but later botanists have included it under *Curculigo* and Baker, who also did this, stated that the seeds of *Curculigo* are rostellate.

William Herbert (1837) placed the *Hypoxideae* as a suborder under his caulescent *Amaryllidaceae*. This suborder he divided further, and under his division *Hypoxidiformes*, characterized by "sepals and petals conformable," he placed the genera ? *Weldenia* Schultes fil., *Curculigo*, *Molineria*, *Hypoxis* and *Coelanthus*.

Weldenia has been placed since in the *Commelinaceae* which it resembles in habit and leaves.

In his *Flora Australiensis* (1873) Bentham formed the order *Amaryllideae* characterized by "Flowers regular or nearly so. Anthers opening inwards. Placentas axile. Seeds albuminous. Inflorescence centripetal. Leaves chiefly radical, veinlets when present transverse." He distinguished five tribes, *Haemodoreae*, *Conostyleae*, *Hypoxideae*, *Agaveae* and *Euamaryllideae*. He said, "The several tribes here distinguished are usually considered as so many independent Orders, or at any rate as referrible to three distinct Orders—*Haemodoraceae*, *Hypoxideae*, and *Amaryllideae*; but although these subordinate groups are in most respects distinct, it appears to me that it is only by their union in one general Order that we can obtain a

well-defined group, of the same grade as *Irideae*, *Burmanniaceae*, *Orchideae*, *Scitamineae* and *Hydrocharideae*, all of them clearly marked out by definite and important characters. It is generally admitted that the above suborders, here united under the *Amaryllideae*, agree in the most important characters derived from the flower and seed, differing from *Hydrocharideae*, *Orchideae* and *Burmanniaceae* in their albuminous seeds, from *Scitamineae* and *Orchideae* in their regular (or only oblique) flowers, from *Irideae* and *Burmanniaceae* in their centripetal (not centrifugal) inflorescence and in their stamens, from *Taccaceae* and the majority of *Orchideae* and *Burmanniaceae* in their axile placentum, from *Dioscorideae* in their hermaphrodite flower, and in all cases there are other characters either less constant or of minor importance . . . Taking therefore the *Amaryllideae* as a whole as one Order, it would include besides the five tribes or suborders here enumerated . . . the *Vellozieae* . . . and the *Alstroemerieae* . . . in which however the secondary inflorescence appears to be centrifugal." Under the tribe *Hypoxideae* he placed *Hypoxis* and *Curculigo*.

Bentham and Hooker in their *Genera Plantarum* (1883) made some changes in the five tribes of Bentham. These tribes they called *Hypoxideae*, *Amarylleae*, *Alstroemerieae*, *Agaveae* and *Vellosieae*. Under the *Hypoxideae* they placed the genera ? *Campynema*, ? *Pauridia*, *Hypoxis* and *Curculigo*.

Pax, writing in Engler and Prantl's *Die natürlichen Pflanzenfamilien* (1887), placed under the family *Amaryllidaceae* the subfamily *Hypoxidoideae*, and under the latter he placed the tribe *Hypoxideae*, containing the genera *Curculigo* and *Hypoxis*. He placed *Campynema* in a subfamily by itself parallel to the *Hypoxidoideae*; and *Pauridia* under the *Haemodoraceae* with the comment, that while Bentham and Hooker are not certain that it belongs in the *Amaryllidaceae*, neither is it certain that it is any better placed in the *Haemodoraceae*. The reason for all this uncertainty lies in the fact that while the plant has the habit and seeds of a tiny *Hypoxis* it has only three stamens.

Baker, in his *Synopsis of the Hypoxidaceae* (1878), followed the plan of Bentham and made the *Hypoxidaceae* a tribe of the *Amaryllidaceae*. Here he collected four genera *Hypoxis*, *Curculigo*, *Molineria* and *Pauridia*, which he characterized in the following manner:—

FIG. 14. *Curculigo scorzoneraefolia*.

"CLAVIS GENERUM.

**Perianthii tubus supra ovarium nullus vel brevissimus. Stamina epigyna.*

1. HYPOXIS. Fructus capsularis circumcissus operculatus. Folia sessilia haud plicata . . .

2. MOLINERIA. Fructus baccatus. Folia petiolata plicata . .

**Perianthii tubus supra ovarium productus. Stamina perigyna.*

3. CURCULIGO. Tubus elongatus filiformis. Stamina 6 . . .

4. PAURIDIA. Tubus brevis infundibularis. Stamina 3 . . ."

These four genera have small, dark seeds, with a crustaceous outer coat and a beak and lateral rostrate hilum. Judging from the similarity of their seeds they should be classed together under the *Hypoxideae*. The seeds of this group are very different from those of the other *Amaryllidaceae* that I have examined and also from those of the neighboring families. However, my study has not been extensive enough to warrant removing the *Hypoxideae* from the *Amaryllidaceae*.

I am including a description and figures (habit $\times \frac{1}{2}$, seed $\times 40$) of the American species of *Curculigo*; and also drawings (habit $\times \frac{1}{2}$, seed $\times 40$) of the monotypic *Pauridia minuta* which appears to have

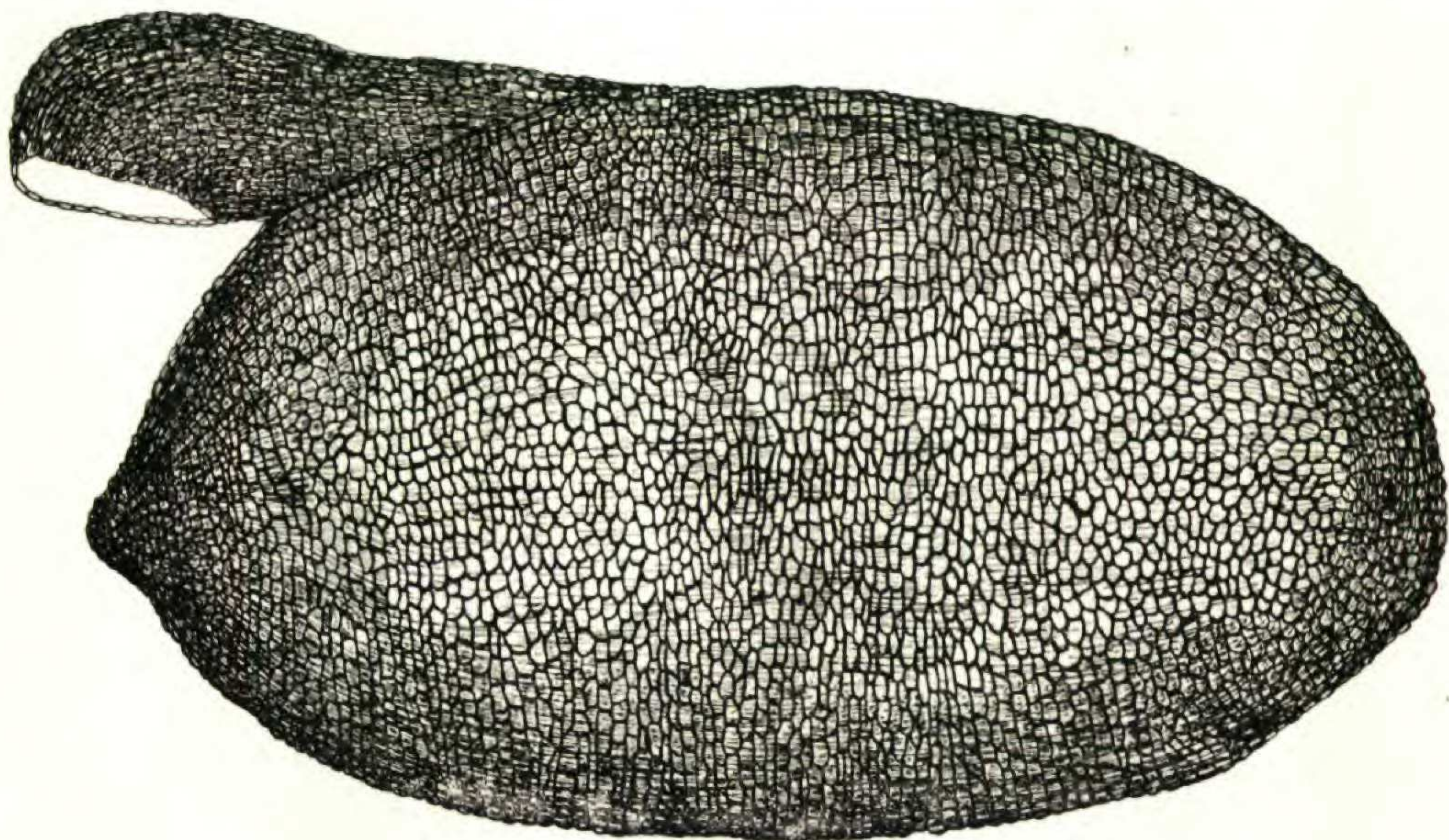


FIG. 15. Seed of *Curculigo scorzoneraefolia*.

a miniature *Hypoxis* seed. I also include figures (habit $\times \frac{1}{8}$, seed $\times 40$) of *Molineria recurvata* (Ait. f.) Herbert (this is Colla's *M. plicata* renamed according to the international rules) to show that it is unlike *Curculigo* and while the seed appears to the unaided eye be "inappendiculata" it has really, when seen under even a low powered glass, the beak and rostrate hilum of the *Hypoxideae*.

CURCULIGO SCORZONERAEOFOLIA (Lam.) Baker. Tuber cylindrical 2.5–above 8 cm. long, about 8 mm. thick, crowned with a tuft of fibers and the disintegrating membranous sheaths of the old leaf-bases; leaves pilose, linear to lanceolate, 1.5–14 mm. broad, 1–3.5 dm. long; in the broader-leaved plants the leaves narrowed to a petiolar base; scapes mostly one-flowered, 5–8.5 cm. long; pedicels very short, scarcely protruding from the tuft of basal fibers; bracts lanceolate, leaf-like, about 2 cm. long; ovary cylindrical when mature,

sheathed by the bracts and the whole encased by the basal fibers; perianth-tube filiform, 2–4 cm. long, pilose, crowned by the six spreading perianth-segments; perianth-segments lanceolate, 0.7–1.4 cm. long, pilose without; capsule indehiscent, cylindrical, subtended by the persistent bracts; seeds black, lustrous, subglobose, 2–2.5 mm. in diameter, with a small beak and a much expanded hilum.—Baker in Journ. Linn. Soc. xvii. 124 (1878). *Hypoxis scorzoneraefolia* Lamarck, Encyc. iii. 183 (1789).—Tropical and subtropical South America and the Antilles.

The accompanying drawings were made from a plant in the Gray Herbarium, collected by *R. Spruce* in the vicinity of Barra, Prov. Rio Negro, Brazil, Dec.–Mar., 1850–1851. Plants belonging to this species have mostly been distributed as *Hypoxis scorzoneraefolia* or as *Hypoxis decumbens* L. The leaves of this species are narrower and more grass-like than are those of most of the Old World *Curculigos*; yet the seed is as typically that of a *Curculigo* as in *C. orchioides* Gaertner around which the genus was described.

PAURIDIA MINUTA (L. f.) Durand & Schinz. Corm globose, 4–8 mm. thick, covered with membranaceous sheaths and the stiff bristly bases of the old leaves; leaves filiform to linear-lanceolate, 0.4–3.6 mm. broad, up to 3.5 cm. long; scapes 1 (rarely 2)-flowered; pedicels longer than the peduncles and subtended by two setaceous bracts; ovary and capsule glabrous; perianth-segments 2–3.6 mm. long, lanceolate, slightly rounded at the apex; capsule subcylindric, 2–3 mm. long; seeds 0.1–0.2 mm. in diameter, black, lustrous, covered with minute rounded pebbling, making the seeds resemble a miniature seed of *Hypoxis hirsuta*, var. *leptocarpa*.—Consp. Fl. Afr. v. 142 (1895). *Ixia minuta* L. f. Suppl. 92 (1781); Thunb. Diss. Ixia. 6, t. 1, f. 1 (1783). *P. hypoxioides* Harvey, Gen. S. Afr. Pl. 342 (1838).—About Cape Town, S. Africa. The following are cited here from near Cape Town; *Mac Owan & Bolus*, no. 291, with seeds (hb. Gray); *H. Bolus*, no. 2815, without seeds (hb. Gray).

MOLINERIA RECURVATA (Ait. f.) Herbert. Tuber cylindrical, covered with the dark disintegrating sheaths of the old leaf-bases; leaves obovate, about 11 dm. long, about 8–13 cm. broad; the lower part narrowed at the base to form a petiole, densely villous when young, becoming glabrate at maturity; blade glabrate, acute; scapes about 2–3 dm. long, villous, bearing flowers and bracts in an oblong

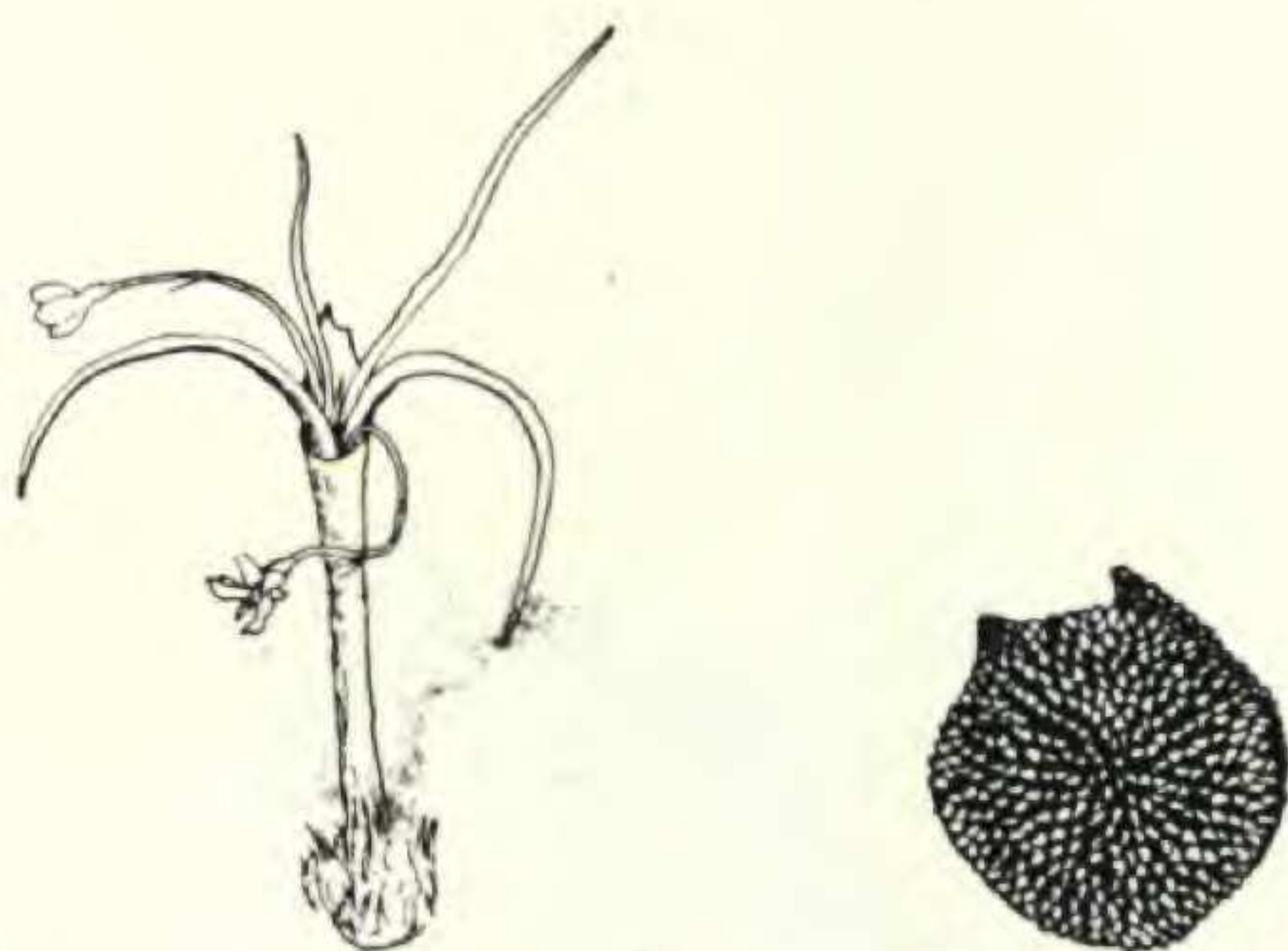


FIG. 16. *Pauridia minuta* and seed.

deflexed head; pedicels about 7–16 mm. long; bracts leaf-like, villous at the apical margins; ovary and capsule cylindrical or subglobose;



FIG. 17. *Molineria recurvata* and seed.

perianth-segments linear-lanceolate, about 7 mm. long, pilose without; capsules indehiscent, 6–12 mm. long, cylindrical, subtended by

the persistent bracts which exceed the combined pedicel and mature capsule in length; seeds black, globose, about 2 mm. in diameter, with uneven contour; murications small, low and flat.—*Amaryllideae* 84 (1837). *Curculigo recurvata* Aiton f. Hort. Kew. ed. 2, ii. 253 (1811); Bot. Reg. ix. t. 770 (1823). *Molineria plicata* Colla, Hort. Rip. App. ii. 331, t. 18 (1825).—Tropical Asia, Australia and the Philippine Islands.

The drawing of this seed was made from specimen no. 18196, distributed by *A. D. E. Elmer*, and now in the Gray herbarium. It was collected in Los Baños (Mt. Maquiling), Province of Laguna, Island of Luzon, June–July, 1917. *Molineria* has been very often confused with *Curculigo* and the specimens have been distributed as *C. recurvata*, *C. gracilis* Kurz and *C. aquasanensis* Elmer.

NOTE ON PORIA FATISCENS.

JAMES R. WEIR.

IN a recent comparison of the types of some *Porias* described from North America, it was determined that the synonymy of *Poria fatiscens* is as follows:

PORIA FATISCENS (Berk. & Rav.) Cke. Grev. **14**: 114, 1886.

Polyporus fatiscens (Berk. & Rav.) in Berk. Grev. **1**: 65. 1872.

Type from South Carolina by Ravenel on dead branches (Rav. Fung. Car. Fasc. 2: No. 21.) Type preserved. Kew, Cambridge, Mass. (Curtis Herb.); Washington (Rav. Fung. Car. and Michener Herb.).

Polyporus tenellus Berk. & Cke; Cooke & Ellis Grev. **6**: 81. 1878. Type from Newfield, N. J., by Ellis on pine boards, preserved, New York (Ellis Herb. no. 1825); Ellis, N. A. F. no. 804. Langlois, no. 433 under this name (Herb. U. S. D. A.) is *Poria vesiculosa* (Berk. & Curt.) Cke.

Polyporus semitinctus Peck, Ann. Rept. N. Y. State Mus. **37**: 37. 1879. Type from Griffins, N. Y., by Peck on wood of *Acer*, preserved at Albany (Peck Herb.).

Poria tenella (Berk. & Cke.) Cke. Grev. **14**: 114. 1886.

Poria semitincta (Pk.) Cke. Grev. **14**: 115. 1886.

Poria subviolacea Ellis & Ev. Amer. Nat. **31**: 339. 1897. Type from Newfield, N. J., by Ellis, on oak branches, preserved, New York (Ellis Herb.) Cambridge (Farlow Herb.), Ellis N. A. F. 3513, 2d Ser.

CHARACTERS:—Sporophore resupinate, extensively effused under favorable conditions in orbicular or elongated patches 2–15 cm. long and 3–9 cm. broad, soft membranaceous, somewhat pulverulent